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United States Department of Agriculture

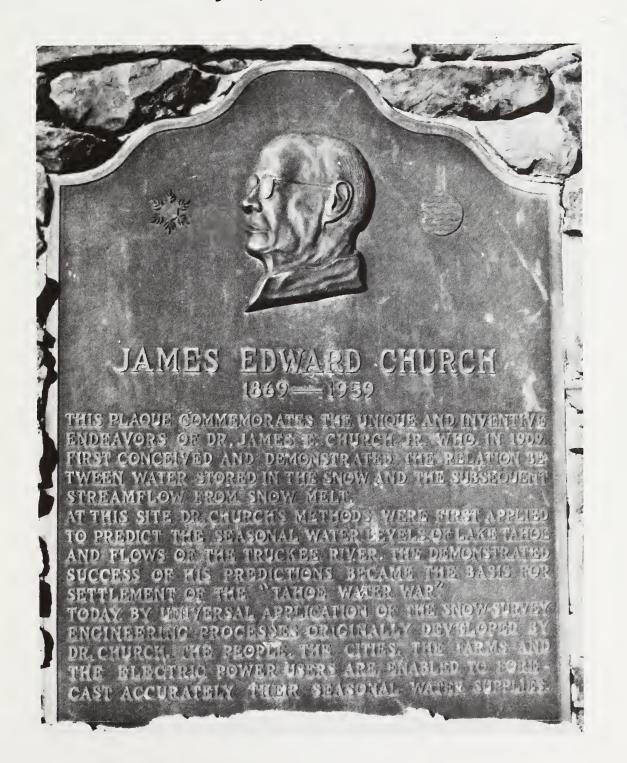
Soil Conservation Service

Boise, Idaho



# idaho Water Supply Outlook

May 1, 1989



#### **Foreword**

#### How Forecasts Are Made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Soil Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply outlook conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via radio telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

An error is associated with each forecast, and this error decreases as the season progresses and more data becomes available. To express the range of error that can be expected, "most probable" forecasts are issued along with a range representing a "reasonable minimum" and a "reasonable maximum". Actual streamflow can be expected to fall within this range in eight out of ten years. Additionally two specific scenarios are provided based on the assumption that subsequent precipitation will be "wet", above average, or "dry", below average.

#### For More Information

Copies of Monthly Water Supply Outlook Reports and other reports may be obtained from the states listed below. An annual snow survey data summary is published by the Soil Conservation Service for each of the western states. Historical snow survey data may be obtained at those same offices.

STATE	ADDRESS
Alaska	201 East 9th Ave., Suite 300, Anchorage, AK 99501-3687
Arizona	201 East Indianola Ave., Suite 200, Phoenix, AZ 85012
Colorado	2490 West 26th Ave., Building A, 3rd floor, Denver, CO 80211
Idaho	3244 Elder Street, Room 124, Boise, ID 83705
Montana	10 East Babcock, Room 443, Federal Building, Bozeman, MT 59715
Nevada	1201 Terminal Way, Room 219, Reno, NV 89502
New Mexico	517 Gold Ave. S.W., Room 3301, Albuquerque, NM 87102-3157
Oregon	1220 Southwest 3rd Ave., Room 1640, Portland, OR 97204
Utah	4402 Federal Building, 125 South State Street, Salt Lake City, UT 84147
Washington	W. 920 Riverside, Room 360, Spokane, WA 99201-1080
Wyoming	Federal Building, 100 "B" Street, Room 3124, Casper, WY 82601

In addition to state reports, a Water Supply Outlook for the Western United States is published by the Soil Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Soil Conservation Service, West National Technical Center, 511 Northwest Broadway, Room 248, Portland, OR 97209-3489.

Water supply reports published by other agencies:

California — Snow Survey Branch, California Department of Water Resources, P.O. Box 388, Sacramento, CA 95802; British Columbia — The Ministry of Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia, V8V 1X5; Yukon Territory — Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory, Y1A3V1; Alberta, Environment Technical Services Division, 9820 106th St., Edmonton, Alberta T5K 2J6.

# Idaho Water Supply Outlook

#### and

# Federal — State — Private Cooperative Snow Surveys

#### Issued by

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#### In cooperation with

R. Keith Higginson Director State of Idaho Department of Water Resources Boise, Idaho

**COVER:** This plaque on the outlet gate at Lake Tahoe, Nevada, commemorates the start of snow surveys in 1909.

<sup>&</sup>quot;Programs and assistance of the United States Department of Agriculture are available without regard to race, creed, color, sex, age, or national origin."

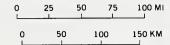


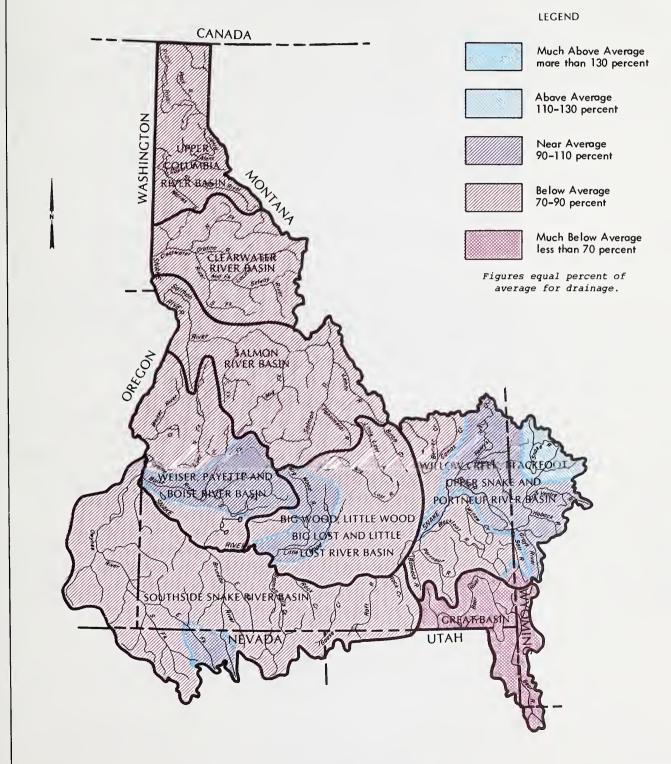
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# STREAMFLOW PROSPECTS IDAHO





# PROPOSED CHANGES TO WSOR FOR 1990: YOU HAVE BEEN HEARD . . .

A recent evaluation of the Snow Survey and Water Supply Forecasting Program interviewed 200 users of the forecasts. We learned that:

- -- Users who got their information by accessing our computer were very satisfied;
- -- Users who depended on the monthly Water Supply Outlook Report needed the information much earlier in the month; and
- -- The reports contained more information than many users needed.

In summary, we are producing a report that is not doing the job for most users. And we are spending a lot of money on the report.

The state-wide WATER SUPPLY OUTLOOK REPORT will be discontinued. We are proposing three actions for the next water year to better meet your needs:

FIRST, the users' direct access of forecasts by computer will be improved. We will provide better instructions and self-training materials. Also, District Conservationists who have computers will be encouraged to access forecasts and distribute local reports to those users who do not have computer facilities.

SECOND, the SCS state office will prepare individual forecast reports for the major river basins in the state. They will be the same as the reports available on the computer. Users who request it will be on a mailing list to receive one or more of the reports. They will be printed and mailed within a day or two after the basin forecast is completed and available on the computer.

THIRD, for users who are interested in the forecasts for their historical value rather than for decision-making, an annual summary will be provided. A West-Wide Report will continue to be available, published jointly with the National Weather Service.

This summer and fall will be spent developing the details of these new procedures. You will be informed prior to next water year's reports, and new mailing lists will be prepared.

Please call us or write if you have any questions.

SCS - Snow Surveys 3244 Elder Street, Rm 124 Boise, Idaho 83705 (208) 334-1614

#### GENERAL OUTLOOK

#### SUMMARY:

WARM TEMPERATURES AND DRY CONDITIONS DOMINATED APRIL'S WEATHER, RESULTING IN EARLY RUNOFF AND A DECREASE IN THE MOUNTAIN SNOWPACK. WITH CONTINUED WARM TEMPERATURES, IDAHO'S SNOWPACK WILL BE DEPLETED BY EARLY JUNE. MOST RESERVOIRS ARE STILL EXPECTED TO FILL, BUT STREAMFLOWS WILL MOST LIKELY DROP TO LOW FLOW CONDITIONS 2-3 WEEKS EARLIER THAN NORMAL. WATER SUPPLIES SHOULD BE ADEQUATE FOR MOST USERS ACROSS THE STATE, WITH THE POSSIBLE EXCEPTION OF SOME BASINS IN SOUTHEASTERN IDAHO.

#### SNOWPACK:

Snow surveys taken at selected sites near May 1 show the mountain snowpack is well into the melt phase. In the northern half of the state, approximately 25-35% of the winter's snow accumulation has melted since April 1. The southern half of the state has lost 35-45% of the winter accumulation, and most lower elevation basins are nearly depleted of their snowpack. Basin-wide snowpacks in the Idaho panhandle now range from 75 to 89% of normal. central part of the state, snowpacks range from 64 to 93% of normal in the higher elevation basins and 52 to 64% in the lower elevation basins. Eastern Idaho and western Wyoming snowpacks range from 86 to 109% in the high basins, while the lower basins report only 18 to 58% of normal snowpack remaining. Basins on the southside of the Snake River report 47 to 92% of normal snowpacks, except on the Owyhee basin where the snowpack is nearly depleted. Snowpack conditions in the southeast corner of Idaho range from 44 to 69% of normal. With snowmelt 2 to 3 weeks ahead of normal, warm temperatures during May will deplete nearly all the remaining snowpack by June 1.

#### RESERVOIRS:

The early snowmelt produced above average runoff on most streams during April, improving storage significantly in most reservoirs. Reservoir storage levels in 27 key reservoirs range from a low of 64% of average (32% of capacity) in Oakley Reservoir to 131% of average (78% of capacity) in Lucky Peak reservoir. Jackson Lake is an exception, reporting only 44% of normal storage and 26% of capacity. The combined storage for 27 major Idaho reservoirs is 102% of normal and 72% of capacity. May-July streamflow projections indicate most major reservoir systems should fill or nearly fill to capacity prior to the end of the runoff season. Exceptions include Salmon Falls Creek, Oakley, Blackfoot, and Montpelier Creek reservoirs which are not expected to fill. Magic Reservoir may not fill, depending upon the timing of irrigation demands. Jackson Lake may also fall short of filling due to the storage restrictions currently imposed on the structure.

#### STREAMFLOW:

Most streams produced above average flows during April as a result of the early snowmelt. Streamflows for the remainder of the season, however, are expected to range from slightly below to well below normal in all areas of the state except in the upper Snake where near normal volumes are anticipated. May-Sept streamflow forecasts range from 57% of normal on Montpelier Creek in southeast Idaho to 103% on the Henrys Fork near Ashton. Forecasts in northern Idaho range from 76 to 88% of average. Central Idaho streams are forecast to be slightly below normal, ranging from 82% on the Little Lost to 94% on the Big Wood nr Bellevue. Forecasts in eastern Idaho are generally near normal, except on the Portneuf which is forecast at only 74%. on the southern Idaho border are expected to produce 79 to 87% of normal flows. The Great Basin in southeast Idaho has the lowest volume forecasts, ranging from 55 to 57% of average.

#### PRECIPITATION:

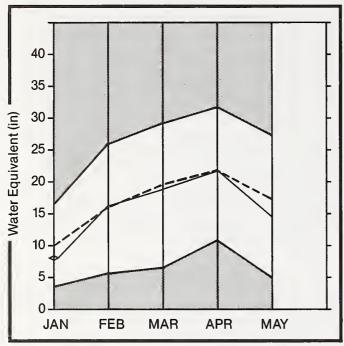
The month of April brought a return to warm and dry conditions across almost the entire state. Precipitation was well below normal for Idaho with only a few exceptions. Porthill was the only valley station above normal with 120% of average: several stations were in the 90th percentile. A breakdown of the state shows the north generally receiving 50 to 60% of normal with extremes from 32 to 120%. Central Idaho show a wide variance from 18% at Salmon to 83% at Fenn Ranger Station. Southwest Idaho was in the 40 to 50% of average range, and the south central portion reported 60 to 80%. Southeast Idaho ranged from 99% at Island Park and 91% at Idaho Falls to just 30 to 40% for the remainder of the area. The state as a whole received 62% of normal. Temperatures were well above normal with Lewiston averaging 5.9 degrees above average for the month. The state as a whole departed nearly 4 degrees from normal.

#### RECREATIONAL OUTLOOK:

Warm, dry weather during April has provided excellent early season boating opportunities, especially on Idaho's southwest desert rivers. As these streams recede to low flow conditions in late May, river runners will focus on the North and Central Idaho mountain rivers. With snowmelt beginning 2-3 weeks earlier than normal, access roads will soon be snow free, and outdoor enthusiasts can enjoy the advantages of moderate flow levels earlier than normal. The Salmon, Snake, Selway, and Lochsa should have plenty of water to ensure excellent floating opportunities throughout the summer.

### Upper Columbia Basin

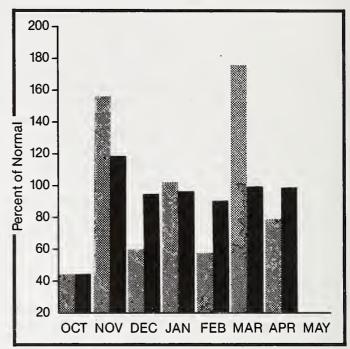
#### Mountain snowpack\* (inches)



\*Based on selected stations



#### Precipitation\* (percent of normal)



\*Based on selected stations

Monthly precipitation

Year to date precipitation

#### WATER SUPPLY OUTLOOK:

May 1 snow surveys indicate spring snowmelt is well underway throughout the basin. Snowmelt began in early April - about a month earlier than normal - and remains 2 to 3 weeks ahead of schedule. The early melt has caused basin-wide snowpack figures to drop 10 to 20% from the April 1 figures, and all basins now report below normal snowpack remaining. snowpack figures range from 75% of normal on the St. Joe to 88% on the Moyie River basin. streamflow volumes were above to well above average as a result of the early melt, and lake and reservoir levels are near or above normal for May 1. d'Alene Lake is 1 to 2 feet above the summer recreation pool. May-Sept streamflow volumes are now expected to be slightly below normal, ranging from 85 Continued warm temperatures should deplete most of the remaining snow by late May or early June.

#### UPPER COLUMBIA RIVER BASIN

#### STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOO		PROBABLE	WET SUBS. (1000AF)	SUBS.	REAS. MAX. (1000AF)		25 YR. AVG. (1000AF)
KOOTENAI at Leonia (2)	MAY-SEP	7290	95			8750	5830	7685
	AUL-YAM	6200	94 •			7450	4950	6585
CLARK FORK at Whitehorse Rapids (2)		10200	87			11700	8670	11764
	MAY-JUL	9110	86			10500	7740	10538
PENO OREILLE LAKE inflow (2)	MAY-SEP	11200	86			13300	9000	12960
	MAY-JUL	10100	86			12000	8110	11680
PRIEST or Priest River (2)	MAY-SEP	630	88			795	475	715
COEUR O'ALENE at Enaville	MAY-SEP	475	87			625	325	543
SOLON O NECKE OF ENOVITIE	HAY-JUL	430	85			570	290	503
SPOKANE or Post Falls (2)	MAY-SEP	1700	87	1760	1660	2170	1210	1957
	HAY-JUL	1600	86	1660	1540	2050	1140	1859
ST. JOE at Calder	MAY-SEP	855	85			1050	665	1008
	MAY-JUL	<b>785</b>	84	830	740	965	605	938
RESERVOIR	STORAGE	(	(1000AF)	     		ERSHED SNOWP	ACK ANALYS	
	USEABLE I	** USEA	ABLE STORAGE	** i		ИО	. тн	HIS YEAR AS % OF
RESERVOIR	1	THIS YEAR	LAST YEAR	AVG. I	ERSHEO			ST YR. AVERAGE
HUNGRY HORSE		1527.0	1019.0 20	140.0   Koo	tenai ab Bonne	ers Ferry 50	0 14	1 89
FLATHEAO LAKE	1791.0	941.0	864.0 · 9	29.0 Moy	ie River	:	2 <b>12</b>	2 88
PENO OREILLE	1561.2	952.5	953.4 9	20.7   Pen	d Oreille Rive	er 15	1 13	37 84

				!				
RESERVOIR	USEABLE I CAPACITYI		EABLE STOF	RAGE ** I	WATERSHEO	NO. COURSES	THIS YEA	R AS % OF
NEGEN GIN	1	YEAR	YEAR	AVG. I	ATT ENGINES	AVG'0	LAST YR.	AVERAGE
HUNGRY HORSE	3451.0	1527.0	1019.0	2040.0	Kootenai ab Bonners Ferrv	50	141	89
FLATHEAO LAKE	1791.0	941.0	864.0	929.0	Movie River	2	122	88
PENO OREILLE	1561.2	952.5	953.4	920.7	Pend Oreille River	151	137	84
NOXON RAPIOS	335.0	318.2	275.6	186.3	Clark Fork River	103	128	78
COEUR O'ALENE	291.2	391.2	248+2	317.2	Priest River	6	148	79
PRIEST LAKE	97.7	93.8	88.8	74.4	Rathdrum Creek	0	0	0
					Havden Lake	0	0	0
					Coeur d'Alene River	9	182	79
					St. Joe River	8	117	<i>7</i> 5
				1	Spokane River	17	138	77
				1	Palouse River	0	0	0
				1				

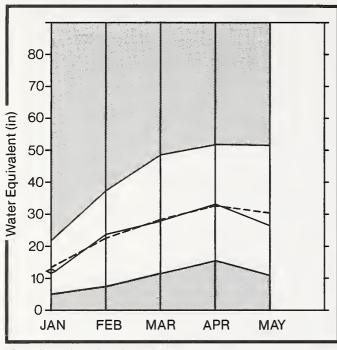
WET SUBS. and ORY SUBS. represent 130 and 70 percent subsequent precipitation events respectively. REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.

<sup>(1) -</sup> REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.

<sup>(2) -</sup> Corrected for upstream diversions or changes in reservoir storage.

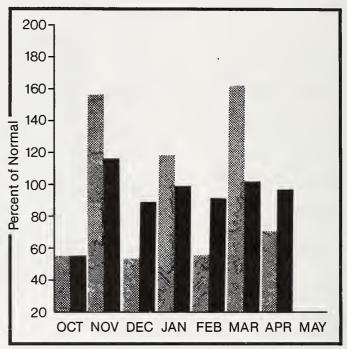
#### Clearwater River Basin

#### Mountain snowpack\* (inches)



\*Based on selected stations

#### Precipitation\* (percent of normal)



\*Based on selected stations

Monthly precipitation

Year to date precipitation

#### WATER SUPPLY OUTLOOK:

Snowmelt in the basin began about a month early and continues to be 2 to 3 weeks ahead of normal. The early melt is reflected in the May 1 snowpack figures, which now show snowpack conditions to be below normal, ranging from 82 to 88% of average. Continued warm temperatures during May should deplete most of the remaining snow by early June. April streamflow volumes were above normal, raising Dworshak reservoir storage to 115% of average for May 1. May-Sept volume forecasts indicate streamflows should be below normal for the period, ranging from 76 to 81%. Peak flows are expected to occur in mid to late May on the major rivers.

For more information contact your local Soil Conservation Service office.

#### CLEARWATER RIVER BASIN

		STRE	AMFLOW FO	DRECASTS						
FORECAST POINT	FORECAST PERIOD	MOST PROBABLE (1000AF)	PROBABIL		SUBS.	SUBS.	REAS. MAX. (1000AF)	REAS. MIN. (1000AF		25 YR. AVG. (1000AF)
DWORSHAK RESERVOIR inflow	MAY-SEP MAY-JUL	1800 1620	4 <sub>11</sub> 76				2230 2010	1370 1230		2366 2179
CLEARWATER at Orofino	MAY-SEP	3500	8:				4490	2460		4318
CLEARWATER at Spalding	MAY-SEP MAY-JUL	5430 5010	86 79				6790 6280	4070 3750		6787 6325
RESE	 RVOIR STORAGE	9	(1000AF)		     	WATER:	SHEO SNOWPA	CK ANALY	sis	
RESERVOIR	USEABLE I CAPACITYI I		ABLE STOF LAST YEAR	AGE **	I WATE	RSHED		RSES -		AR AS % OF
OWORSHAK	3467.8	2609.7	2499.8	2276.0	l Nort	h Fork Clearwa		1	31	80
					l Loch	sa River	6	. 1	23	86
					l Selw	ay River	7	* 1	18	88
					l Clea	rwater River	23	1	27	82

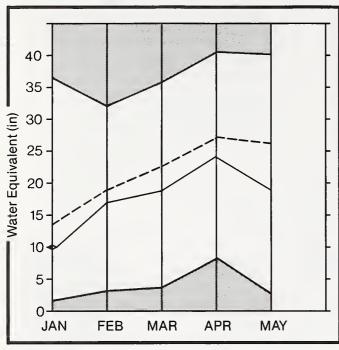
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(1) - REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.

(2) - Corrected for upstream diversions or changes in reservoir storage.

#### Salmon River Basin

#### Mountain snowpack\* (inches)

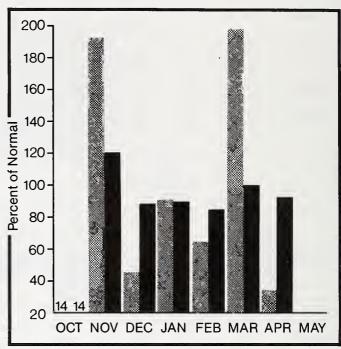


\*Based on selected stations

Maximum Average ———

Minimum Current ←

#### Precipitation\* (percent of normal)



\*Based on selected stations

Monthly precipitation

Year to date precipitation

#### WATER SUPPLY OUTLOOK:

May 1 snow surveys indicate the winter snowpack is well into the spring melt cycle. Snowmelt began in early April and continues to be 2 to 3 weeks ahead of normal. The early melt has caused basin-wide snowpack figures to drop 20 to 30% from the April 1 figures and now range from 73 to 77% of normal. April streamflows were above normal, ranging from 111% of average for the Salmon at Salmon to 126% for the Salmon at Whitebird. May-Sept volume streamflow forecasts indicate flows for the remainder of the season will be below normal. Continued warm temperatures will deplete most of the remaining snowpack by early June, and peak flows are expected to occur in mid May.

For more information contact your local Soil Conservation Service office.

#### SALMON RIVER BASIN

#### CTDEAMELON EDDECARTE

FORECAST POINT	FORECAST	MOST PROBABLE		WET SUBS.	DRY SUBS.	REAS.	REA MT	N.	25 YR AVG.
	PERIOD			(1000AF)		(1000AF)			(1000A
SALMON at Salmon	MAY-SEP	835	85			1140	5	520	98
SALMON at White Bird	MAY-SEP	5270	83			6350		.20	636
	MAY-JUL	4680	82			5650	36	660	567
		13							
	RESERVOIR STORAGE		1000AF)	     		ERSHED SNOWP	ack ana	LYSIS	
DECEDIATE	USEABLE I	** USEA	BLE STORAGE	xx i				THIS	YEAR AS %
RESERVOIR		** USEA	ELE STORAGE LAST	xx i	WAT	 МО СО		THIS	YEAR AS % 
RESERVOIR	USEABLE I CAPACITYI	** USEA	ELE STORAGE LAST	**     HATE 	RSHED	 МО СО	URSES G'D	THIS	
RESERVOIR	USEABLE I CAPACITYI	** USEA	ELE STORAGE LAST	**     WATE      Salm	RSHED	NO CO AV Salmon	URSES G'D	THIS LAST	YR. AVERA

WET SUBS. and DRY SUBS. represent 130 and 70 percent subsequent precipitation events respectively.

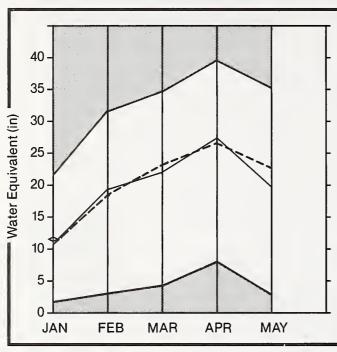
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### Weiser, Payette, and Boise River Basin

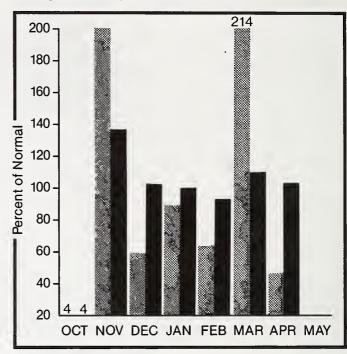
#### Mountain snowpack\* (inches)



\*Based on selected stations



#### Precipitation\* (percent of normal)



\*Based on selected stations

Monthly precipitation

Year to date precipitation

#### WATER SUPPLY OUTLOOK:

The May 1 snow surveys show the winter snowpack is well into the spring melt cycle, with snowmelt beginning 2 to 3 weeks earlier than normal. 1 snowpack figures reflect the early melt, showing snowpack conditions to be below normal. range from 82 to 93% of average in the higher elevation basins while the lower elevation Weiser basin reports only 64% of normal snowpack remaining, Most of the snow in the low elevation basins is now April streamflow volumes were above depleted. normal, allowing reservoir operators to store significant amounts of water during the month. Current storage levels range from 84 to 131% of normal and all major reservoirs are expected to fill. May-Sept streamflow projections indicate flows will be slightly below normal for the remainder of the season, ranging from 87 to 93% of average. Basins with storage facilities should have good water supplies for the 1989 season, while systems without storage may experience some late season shortages due to the early runoff.

#### WEISER, PAYETTE, AND BOISE RIVER BASIN

#### STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	MOST PROBABLE (1000AF)	MOST FROBABLE (% AVG.)	WET SUBS. (1000AF)	DRY SUES. (1000AF)	REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
WEISER or Weiser	MAY-JUL	235	86			330	143	272
NF PAYETTE at Cascade (2)	MAY-SEP	425	89			515	340	479
	MAY-JUL	390	88			475	310	441
NF PAYETTE or Banks (2)	MAY-SEP	. 535	89			650	420	601
	MAY-JUL	490	88			595	385	557
PAYETTE or Horseshoe Bend	MAY-SEP	1350	87			1610	1090	1551
	MAY-JUL	1220	87			1460	980	1406
SF PAYETTE at Lowman	MAY-SEP	420	91			505	335	463
	MAY-JUL	365	90			440	290	404
DEADWOOD RESERVOIR inflow	MAY-JUL	111	86			133	89	129
BOISE or Twin Springs (1)	MAY-SEP	× 560	93	560	540	655	465	602
, ·	MAY-JUL	500	92	500	495	585	415	544
BOISE or Boise (1)	MAY-SEP	1180	91	1220	1140	1400	1000	1295
	MAY-JUL	1070	91	1120	1020	1270	905	1175
SF BOISE at Anderson Ranch Dam (1)	MAY-SEP	460	91	460	455	550	370	507
	MAY-JUL	420	90	435	400	505	335	466

R	ESERVOIR STORAGE		(1000AF)	! !	WATERSHED SN	OMFACK AN	ALYSIS	
RESERVOIR	USEABLE I CAFACITYI	** USE THIS YEAR	EABLE STOR LAST YEAR	 AGE **       AVG	WATERSHED	NO. COURSES AVG'D		'EAR AS % OF
MANN CREEK	11.3	11.2	8.6	10.4	Mann Creek	1	. 0	85
CASCADE	703+2	526.9	442.5	411.7	Weiser River	4	943	64
DEADWOOD	162.0	88.3	89.4	101.1	North Fork Payette	9	266	83
ANDERSON RANCH	464.2	276.2	180.0	327.2	South Fork Payette	7	201	82
ARRONROCK	286+6	209+6	116.0	214.9	Payette River Total	16	233	83
LUCKY PEAK	307.0	240.4	257.6	182.9	Middle & North Fork Boise	7	158	91
LAKE LOWELL (DEER FLAT)	177.0	147.2	127.3	169.8	South Fork Boise River	6	162	93
					Boise River Total	15	188	91
				l I	Canyon Creek	0	0	0

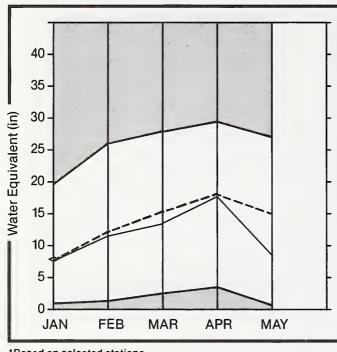
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<sup>(1) -</sup> REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.

<sup>(2) -</sup> Corrected for upstream diversions or changes in reservoir storage.

# Big Wood, Little Wood, Big Lost, and Little Lost River Basin

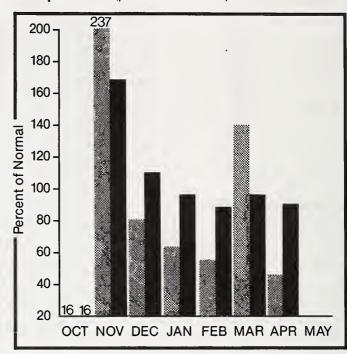
#### Mountain snowpack\* (inches)



\*Based on selected stations



#### Precipitation\* (percent of normal)



\*Based on selected stations

Monthly precipitation

Year to date precipitation

#### WATER SUPPLY OUTLOOK:

Snowmelt in the basin began a month early and continues to be 2 to 3 weeks ahead of normal. The early snowmelt coupled with below average precipitation during April has resulted in below normal snowpacks on May 1. Basin-wide snowpacks now range from 52% of average on the Little Wood and Little Lost River basins to 79% on the Big Wood mainstem. Most of the low elevation snowpack is depleted, and warm temperatures during May should deplete the remaining snow by late May or early June. April streamflows were above normal and allowed reservoir levels to be significantly improved. Reservoir gained over 100,000 ac. ft. of storage during April, and contents are now 85% of average (75% of capacity). The timing of irrigation demands could determine whether Magic Reservoir fills. May-Sept streamflows are forecast to be below normal for the remainder of the season, ranging from 82 to 94%, with peak flows expected to occur in mid May. supplies should be adequate to meet user needs for the 1989 season.

#### BIG WOOD, LITTLE WOOD, BIG LOST, AND LITTLE LOST RIVER BASIN

#### STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	MOST PROBABLE (1000AF)	MOST PROBABLE (% AVG.)	WET SUBS, (1000AF)	DRY SUBS. (1000AF)	REAS. MAX. (1000AF)	MIN.	25 YR. AVG. (1000AF)
		7						
BIG WOOD or Bellevue	MAY-SEP	- 178	94			225	129	190
	MAY-JUL	165	94			210	125	175
MAGIC RESERVOIR inflow	MAY-SEP	215	91			290	139	237
THIELD NESERVOLK LINESEN	MAY-JUL	200	90			270	129	221
LITTLE WOOD or Carey	MAY-SEP	72	91	78	67	92	52	79
	MAY-JUL	64	90	69	59	82	46	71
BIG LOST at Howell Ranch or Chilly	MAY-SEP	181	87			235	127	208
,	MAY-JUL	< 157	87	161	153	205	110	181
BIG LOST bl Mackay Reservoir (2)	MAY-SEP	158	87	160	156	215	100	182
	MAY-JUL	<b>129</b>	87			176	82	148
LITTLE LOST bl Wet Ck	MAY-SEP	29	82	30	27	40	18.4	35
	MAY-JUL	23	83	24	21	31	14.7	28
LITTLE LOST or Howe	MAY-SEP	32	84	33	31	43	21	38
	MAY-JUL	23	82	24	22	31	14.6	28

	RESERVOIR STORAGE		(1000AF)	1	WATERSHE	O SNOWPACK AN	ALYSIS	
RESERVOIR	USEABLE I CAPACITYI	** USE THIS YEAR	ABLE STOF LAST YEAR	AGE ** I	WATERSHEO	NO. COURSES AVG'D		EAR AS % OF
MAGIC	191.5	142.8	57.6	167.7	Big Wood ab Magic	9	176	79
LITTLE WOOD	30.0	27.8	26.7	24.6	Camas Creek	2	0	62
CAREY VALLEY		NO REPO	RT		Big Wood Total	11	188	77
MACKAY	44.5	28.2	31.8	34.2	Little Wood River	3	310	52
				!	Fish Creek	0	0	, 0
				1	Big Lost River	5	141	64
					Little Lost River	4	128	52
				'				2

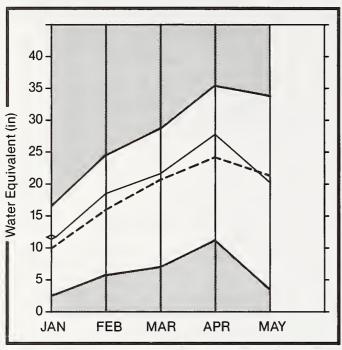
WET SUBS. and DRY SUBS. represent 130 and 70 percent subsequent precipitation events respectively. REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.

<sup>(1) -</sup> REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.

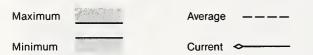
<sup>(2) -</sup> Corrected for upstream diversions or changes in reservoir storage.

# Willow Creek, Blackfoot, Upper Snake, and Portneuf River Basin

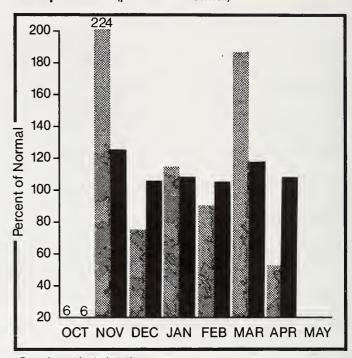
#### Mountain snowpack\* (inches)



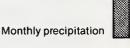
\*Based on selected stations



#### Precipitation\* (percent of normal)



\*Based on selected stations



Year to date precipitation

#### WATER SUPPLY OUTLOOK:

May 1 snow surveys indicate spring snowmelt is about 2 weeks ahead of normal for this time of year. early melt coupled with sparse precipitation in April has caused higher elevation snowpack figures to drop 10-20% from the April 1 figures and lower elevation basins to drop 40-60%. May 1 snowpacks, however, remain near or slightly above normal in the Henrys Fork, Teton, and Upper Snake River basins, ranging from 97 to 109%. Lower elevation snowpacks are now well below normal, ranging from only 18% of average on the Salt River to 58% on the Portneuf and Willow May-Sept streamflows are forecast to Creek basins. be near normal on the high elevation basins and below normal on the lower basins. Forecasts range from 74% of normal on the Portneuf to 103% on the Teton and Henrys Fork Rivers. Reservoir storage levels have improved, and most reservoirs are expected to fill with the exception of Blackfoot Reservoir. Reservoir also may not fill due to the storage restrictions currently imposed on the structure. Water supplies should be good in most basins. users on the Portneuf, however, could experience some late summer shortages due to the early melt and lack of storage facilities.

#### WILLOW CREEK, BLACKFOOT, UPPER SNAKE, AND PORTNEUF RIVER BASIN

#### STREAMFLOW FORECASTS

FORECAST POINT	FORECAST	MOST PROBABLE	MOST PROBABLE	WET SUE:S.	DRY SUBS.	REAS. MAX.	REAS. MIN.	25 YR. AVG.
	PERIOD	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)	(1000AF)	(1000AF)
HENRYS FORK or Ashton (2)	MAY-SEP	8 660	103	680	640	705	615	639
	MAY-JUL	460	102	480	440	490	430	449
HENRYS FORK or Rexburg (2)	MAY-SEP	1410	102	1440	1380	1630	1220	1389
	MAY-JUL	1070	101	1080	1060	1240	920	1055
FALLS or Squirrel	APR-JUL	380	102			430	330	373
TETON ab S Leigh Ck nr Driggs	MAY-SEF	175	102	177	168	215	137	172
	MAY-JUL	125	101	130	120	152	98	123
TETON or St. Anthony	MAY-SEP	445	103			495	395	434
	MAY-JUL	350	102			390	310	342
SNAKE nr Moran (1)	APR-SEP	1000	113	1020	990	1100	895	888
PALISADES RESERVOIR inflow (1)	APR-SEP	4100	106	4140	4060	4520	3680	3852
SNAKE or Heise (2)	MAY-SEP	3850	102	3930	3770	4530	3170	3790
	MAY-JUL	3200	101	3300	3100	3770	2630	3173
SNAKE or Blackfoot (2)	MAY-SEP	5350	102	5350	5190	6080	4670	5243
	MAY-JUL	4230	102	4270	4190	4810	3690	4152
FORTNEUF at Topaz	MAY-SEP	58	74			81	35	78
	MAY-JUL	42	74	45	39	59	25	57

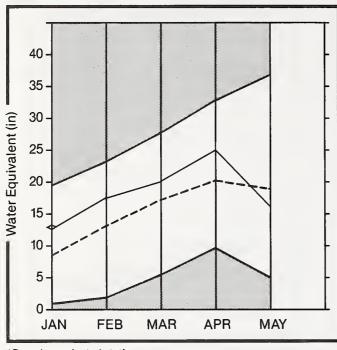
	RESERVOIR STORAGE		(1000AF)		WATERSHED SN	ЮНРАСК АМ	ALYSIS	
RESERVOIR	USEAGLE I CAPACITYI		EABLE STO		WATERSHED	NO. COURSES	THIS YEAR	R AS % OF
KESERVOIK		YEAR	YEAR	AVG.	WHIEKSHED	AVG'D	LAST YR.	AVERAGE
ISLAND PARK	127.6	111.0	136.0	125.7	Camas-Beaver Creeks	3	2013	79
GRASSY LAKE	15.2	10.4	10.3	11.5	Henrys Fork River	10	168	109
JACKSON LAKE	824.7	218.2	156.7	494.3	Teton River	9	144	97
PALISADES	1357.0	955.0	1119.1	871.8	Snake above Palisades	20	137	86
AMERICAN FALLS	1700.0	1556.5	1641.8	1542.9	Snake above Jackson Lake	3	146	108
ROUNLEE	975.3	548.7	895.3	515.9	Gros Ventre River	2	136	102
LACKFOOT	348.7	202.0	279.1	274.6	Greys River	4	119	88 ' ੂ
HENRY'S LAKE	90.4	73.3	85.2	81.8	Salt River	6	236	18
RIRIE	96.5	78.9	66+4	63.5	Willow Creek	7	<b>37</b> 3	58
		olite «	iner 2000 til bestrivert den se	erestan erretektika	Blackfoot River	3	826	36
					Portneuf River	2	0	58
				1	Toponce Creek	0	0	0

WET SUBS, and DRY SUBS, represent 130 and 70 percent subsequent precipitation events respectively. REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.

 <sup>(1) -</sup> REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.
 (2) - Corrected for upstream diversions or changes in reservoir storage.

#### Southside Snake River Basin

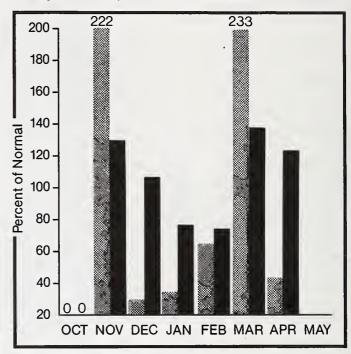
#### Mountain snowpack\* (inches)



\*Based on selected stations



#### Precipitation\* (percent of normal)



\*Based on selected stations

Monthly precipitation

Year to date precipitation

#### WATER SUPPLY OUTLOOK:

Snowmelt in the basin began about a month early and continues to be 2 to 3 weeks ahead of normal. elevation snowpacks have completely melted and midelevation snowpacks are nearly depleted. snowpack figures range from 47 to 92% of normal. High elevation sites in the Jarbidge Range report slightly below normal snowpacks remaining on May 1. The early snowmelt produced above average streamflow volumes for April. Streamflows for the remainder of the season, however, are expected to be below normal, with May-Sept volume forecasts ranging from 79% for Oakley Reservoir inflow to 87% for Owyhee Reservoir Reservoir storage ranges from 64% of normal in Oakley Reservoir to 116% in Owyhee Reservoir. Water supplies should be adequate to meet most user needs, but some late summer shortages may occur on the Oakley system and on basins without storage facilities.

#### SOUTHSIDE SNAKE RIVER BASIN

#### STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD		PROBABLE			REAS. MAX. (1000AF)	REAS. MIN. (1000AF)	25 YR. AVG. (1000AF)
DAKLEY RESERVOIR inflow	MAY-SEP	20	79			28	11.9	25
	MAY-JUL	18.0	81			25	10.9	22
SALMON FALLS CK or San Jacinto	MAY-SEP	54	81	59	49	78	31	67
	MAY-JUL	50	81	56	45	72	28	62
RUNEAU or Hot Spring	MAY-SEP	155	82			225	87	188
, ,	MAY-JUL	145	82	149	145	210	82	176
DWYHEE nr Gold Ck (2)	MAY-JUL	14.2	101	14.3	13.9	18.5	9.9	14.0
WYHEE or Owyhee (2)	APR-JUL	95	110	104	86	122	68	86
DWYHEE or Rome (2)	MAY-JUL	155	82	159	15 <b>1</b>	240	70	189
WYHEE RESERVOIR inflow (1)	MAY-SEP	225	87	250	200	330	121	260
	MAY-JUL	. 186 	80	205	165	280	93	232
RESERVOI	R STORAGE	(	1000AF)	l I I	 Wate	RSHED SNOWPA	CK ANALYSIS	
	USEABLE I	** USEA	BLE STORAG	E ** i		ю.	THIS Y	EAR AS % OF
RESERVOIR	CAPACITY!	THIS YEAR	LAST YEAR	AVG. I	TERSHED	AVG		R. AVERAGE
JAKLEY	77.4	25.0	21.4		ft River	1		92
SALMON FALLS	182.6	69.5	60.4	81.4   Go	ose-Trapper Cre	eks 1	. 163	101
DWYHEE	715.0	706.9	273.6	606.9 Sa	lmon Falls Cree	ek 11	148	63
					uneau River	7	138	77

Owyhee River

WET SUBS. and DRY SUBS. represent 130 and 70 percent subsequent precipitation events respectively. REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.

264

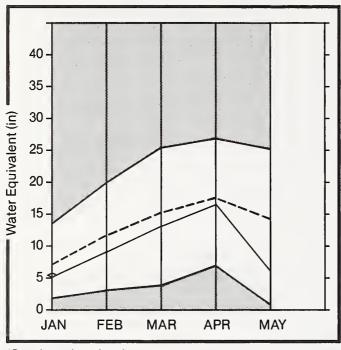
67

<sup>(1) -</sup> REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.

<sup>(2) -</sup> Corrected for upstream diversions or changes in reservoir storage.

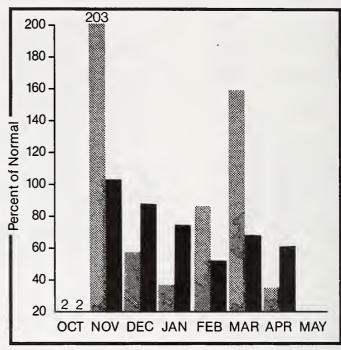
#### **Great Basin**

#### Mountain snowpack\* (inches)



\*Based on selected stations

#### Precipitation\* (percent of normal)



\*Based on selected stations

Monthly precipitation

Year to date precipitation

#### WATER SUPPLY OUTLOOK:

May 1 snow surveys indicate the winter snowpack is well into the spring melt phase, and low elevation basins are nearly depleted of their winter snow. Spring melt began about a month early and remains 2 to 3 weeks ahead of normal. Basin-wide snowpacks currently range from 44 to 69% of normal. the snowmelt has been early, April streamflows remained near or below normal indicating the dry soils in the basin have absorbed a significant amount of the snowmelt. May-Sept streamflow projections indicate streamflows will be below to well below normal for the remainder of the season. Storage in Montpelier Creek Reservoir is currently only 55% of capacity and is not expected to fill. Water supplies could be marginal on Montpelier Creek and in basins without storage facilities.

#### GREAT BASIN

		STREA	AMFLOW FOR	ECASTS						
FORECAST POINT	FORECAST PERIOD	PROBABLE	PROBABLE		SUBS.	SUBS.	REA MA (1000	iX. i	EAS. IIN. DOAF)	25 YR. AVG. (1000AF)
BEAR RIVER near Harer	APR-SEP	188	61	Á			3	305	70	310
MONTFELIER CK or Montpelier	MAY-SEP	6.4	57	`s,			10	.2	2.6	11.3
CUB RIVER or Preston	MAY-SEP MAY-JUL	28 27	55 59		30 29	26 25			9.6 10.4	51 46
RESER	VOIR STORAGE		(1000AF)		     			HOMBACK A		
RESERVOIR	USEABLE ! CAPACITY!	THIS	ABLE STORA LAST YEAR		I WATERSHED			NO. COURSES AVG'D	THIS	YEAR AS % OF
EEAR LAKE						River (above				64
MONTPELIER CREEK	4.0	2.2	2.5	2.3	l Mont	pelier Creek		5	155	47
	***	Military and the Control of the Cont	affinit timetaan teen	manima a	l I Mink	Creek		2	154	52
					l Cub	River		3	150	69
					l Mala	d River		0	0	0
					1					

WET SUBS. and DRY SUBS. represent 130 and 70 percent subsequent precipitation events respectively.

REAS. MAX. and REAS. MIN. forecasts are for 10% and 90% exceedance levels with the exception of (1) below.

(1) - REAS. MAX. and REAS. MIN. forecasts are for 5% and 95% exceedance levels.

(2) - Corrected for upstream diversions or changes in reservoir storage.

# SNOW DATA MEASUREMENTS

SNOW COURSE	ELEVATION	OATE	SNOW OEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85	SNOW COURSE	ELEVATION	OATE	SNOW OEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-85
UPPER COLUMBIA BASIN					ATERSHEO		CLEARWATER BASIN					WATERSHE	) 11
ABOVE BURKE BEAR YOUNTAIN BENTON MEAOOW BENTON SPRING BREEZY SAOOLE COPPER RIDGE EAST RAGGEO SAOOLE FORTY-NINE MEAOOWS FOURTH OF JULY SUM GRANITE PEAK HUMBOLOT GULCH HUMBOLOT GULCH HUMBOLOT GUCH LOOKOUT LOOKOUT LOST LAKE LOST LAKE LOST LAKE PILL LOWER SANDS CREEK MOSQUITO RIDGE MOSQUITO PILLS SCHWEITZER BASIN SCHWEITZER BASIN SCHWEITZER BOWL SCHWEITZER RIDGE SHERWIN SHERWIN SHERWIN SHERWIN SHERWIN FILL SKITWISH RIDGE SMITTISH RIDGE SMITT	5140 ON 5140 6110 ON 6110 3120 5200 ON 5200 6090 4800 6200 3200 ON 3200 ON 5110 4800 5540	5/01/89 4/25/89 4/28/89 4/28/89 4/26/89 4/26/89 4/26/89 5/01/89 5/01/89 4/28/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89	105 0 25 36 0 0 78 8 8 60 107 84 28 82 14 54 76	6.8E 54.7 .0 11.5 16.2 18.3E .0 15.1E .0 32.4 3.8 .0 24.6 22.3 47.1 55.7 21.9E 29.1E 29.2 41.9 43.6 14.3 39.8 6.9 6.8 27.0 37.2 26.9E .0	8.0 40.4 .0 1.7 12.0 3.8 -11.6 .0 30.6 .0 .0 17.2 14.6 39.1 47.6 17.0 36.1 39.6 17.0 36.1 39.6 17.0 30.6 20.3	18.6 63.2 .0 15.4 26.9 22.2 16.6 25.1 .1 30.1 13.0 10.1 31.3 66.1 66.8 16.3 36.6 37.0 51.1 53.3 24.2 48.8 4.6 6.8 28.8 32.8	BREEZY SAOOLE BUCK MEAOOWS CAYUSE AIRSTRIP COOL CREEK CRATER MOUNS CRATER MOUNS CRATER MOUNS CRATER MOUNS COAT LAKE HEMLOCK BUTTE HEMLOCK BUTTE PILLOW HOOGOO CREEK LOLO PASS LOLO PASS LOLO PASS LOLO PASS LOLO PASS LOLO PASS PILLO HOUNTAIN MEAOOWS HOUNTAIN MEAOOWS HOUNTAIN MONS HOUNTAIN MONS PILLO NEZ PERCE PASS PIERCE R.S. SAVAGE PASS PILLO SHANCHAI SUMMIT SHANGHAI SUM PILLO SHERWIN SHERWIN SHERWIN PILLO TYIN LAKES WEBB CREEK	6030 5960 3610 5550 4830 6500 6000 5810 6050 5810 6050 5900 5240 6110 6110 6360 6360 6360 6170 4570 4570 4570 3200	4/26/89 4/28/89 4/26/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 4/26/89 4/26/89 4/26/89 4/26/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89	36 63 0 113 92 87 70 95 78 96 	16, 2 30, 7 .0 47, 2 48, 7 40, 5 41, 3 42, 1 53, 6 31, 7 15, 1E 43, 4 45, 4 46, 5 36, 5 20, 0 21, 6 47, 1 55, 7 17, 0 21, 9 21, 6 43, 3 32, 4 45, 4 46, 5 36, 5 20, 0 21, 6 47, 1 55, 7 17, 0 21, 9 21, 9 21	12.0 20.0 0 37.2 39.1 29.8 31.1 29.3 0.0 10.3 18.4 30.4 29.0 35.5 15.0 35.5 15.0 26.4 29.0 35.5 15.0 35.6 4.6 6.6 6.6 6.6 6.6 6.6 6.7 6.7 6.7 6.7 6	26.9 27.1 .7 53.2 52.0 35.8 47.0 49.9 2.6 31.5 38.7 40.2 25.1 50.7 53.0 49.6 49.3 28.3 29.5 60.1 66.8 23.5 27.4 15.5 27.9 29.6 21.1 22.4 4.6 6.8 45.2
SALMON BASIN				,	WATERSHE	0 111	WEISER, PAYETTE, AND 80	ISE BASINS				WATERSHE	o IV
MOOSE CREEK MOOSE CR PIL MORGAN CREEK MORGAN CREEK PIL ROCK FLAT SUMMIT SAOOLE MOUNTAIN SECESH SUMMIT SECESH SUMMIT PIL SQUAW MEAOOW VIENNA MINE VIENNA MINE VIENNA MINE WEST BRANCH	LOW 5350 LOW 6580 LOW 6580 7560 7920 6860 8780 7100 7480 8100 9150 LOW 9150 LOW 940 LOW 6200 LOW 6200 LOW 7600 5310 7940 6520	4/27/89 5/01/89 4/27/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 5/01/89 4/26/89 4/28/89 5/01/89	38 76 76 77 77 77 726 61 61 61 65 55 77 77 77 72 12 12 12 12 12 12 12 12 12 12 12 12 12	14.2E 14.3 18.0 18.9 2.0 3.5 12.6 10.9 3.6 2.4 15.3E 27.6 30.0 27.2 35.7 33.0	14.4 12.5 4.0 6.9 23.5 20.0 9.8 26.5 14.4 11.5 8 3.2 7.6 6.8 16.3 1.4 3.0 7.2 7.9 3.5 2.5 2.5 2.5 2.5 2.4 18.3 24.8 25.9 24.8	21.2 24.4 22.9 8.3 10.6 14.4 12.5 11.6 9 28.6 34.5 34.9 34.8 39.1 40.3 18.6	CRAWFORD R.S. OEAOMAN GULCH OEAOMOOO AIRSTRIP OEAOMOOO SUMMIT OOLLARHIOE SUMMIT OOLLARHIOE SM PILLC GRAHAM GUARO STATIC GRAHAM G.S. PILLC IOAHO CITY TOWNSITI JACKSON PEAK LAKE FORK MOORES CREEK SUMMIT MOORES CK SUM PILLC PRAIRIE	5370 7040 4940 5350 6180 6580 6580 6580 6580 6580 6580 6580 65	4/27/89 5/01/89 4/27/89 5/01/89	47 0 0 28 77 61 0 0 62 22 64 0 0 0 62 22 64 0 0 0 0 28 77 61 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	34.6 30.0 0 25.0 22.3 0 16.6 17.8 21.7E 21.8 35.7 31.3 24.5 0 0 1.2 0 13.8 0E 36.7 23.5 24.5 0 0 0 17.8 30.8 30.8 30.8 30.8 30.8 30.8 30.8 30	.4 23.5 20.0 4.3 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0 .0	16.6 39.1 40.3 18.6

# SNOW DATA MEASUREMENTS (cont.)

SNOW COURSE	ELEVATION	OATE	SNOW	WATER	LAST	AVERAGE	SNOW COURSE	ELEVATIUN	OATE	SNOW	WATER	LAST	AVERAGE
			OEPTH	CONTENT	YEAR	1961-85				DEPTH	CONTENT	YEAR	1961-85
8IG WOOD, LITTLE WOOD,	8IG LOST,	AND LITTLE	LOST	BASINS	WATERSHEI	o V	⊮ILLOW, SLACKFOOT, UPPER	R SNAKE, A	ND PORTNEU	F BASIN	s i	JATERSHEI	IV
8EAR CANYON	7900	4/27/89	33	12.0	8.0	17.9 17.2	ASPEN GROVE BEAVEROAM CREEK	6500 6120	4/28/89 4/30/89	0	.5E	.0	
BEAR CANYUN PILL COPPER BASIN	0W 7900 7640	5/01/89 4/27/89	0	13.2	8.8 .0	7.5	BIG SPRINGS	6400	4/27/89	35	.0 15.9	.0 3.6	16.2
COUCH SUMMIT	6840	4/30/89		9.6E	.0	14.2	BIRCH CREEK	6800	4/28/89	2	.5	.0	4.4
DOLLARHIDE SUMMIT	8420	4/27/89	61	23.5	16.0	25.0	BLACK SEAR	7950	4/25/89	98	48.1	36.5	44.2
DOLLARHIOE SM PILL	OW 8420 9300	5/01/89 4/27/89	45	24.5 18.4	17.0 16.2	25.5 23.6	BLUE LEUGE MINE BLUE RIDGE	6900 6780	5/01/89 4/28/89	24	16.3E 10.5	2.3 .0	17.4
FISHPOLE LAKE GALENA	7440	4/27/89		9.2E	.0	14.5	BONE	6200	4/28/89	0	.0	.0	1.0
GALENA PILL	O₩ 7440	5/01/89		14.2	7.0	20.1	BROCKMAN STATION	6430	4/28/89	0	.0	.0	<del></del>
GALENA NEW	7470	4/27/89	40	15.9	7.9	20.7 25.8	COULTER CREEK COLD SPRINGS	7020 7000	5/01/89 4/29/89	28	15.5E 13.4	1.7	17.8
GALENA SUMMIT GALENA SUMMIT PILL	8780 Ow 8780	4/27/89 5/01/89	47	18.3 16.0	14.4 11.5	21.2	CRAB CREEK	6860	5/01/89		15.0E	1.7	15.7
GARFIELD R.S.	6560	4/27/89	0	.0	.0	2.3	CRAB CREEK PILLOW		5/01/89		15.5	1.8	16.2
GARFIELD R.S. PILL		5/01/89		.0	.0	5.5	EAST CREEK	7000	4/30/89	0	.0	.0	
GRAHAM RANCH	6270	4/27/89	18	6.8	.0	9.1 9.3	FALL CREEK GRASSY LAKE	6820 7270	4/28/89 4/28/89	3 72	.5 35.9	.0	34.9
HILTS CREEK HILTS CREEK PILL	0008 wo	4/28/89 5/01/89	26	7.9 9.5	5.8 8.7	11.1	GRASSY LAKE PILLOW	7270	5/01/89		34.9	23.6 23.3	36.4
HYNDMAN CREEK	7440	4/27/89	20	7.0	1.8	10.7	INDIAN MEADOWS	9420	4/28/89	94	40.4	28.9	38.1
HYNDMAN PILL		5/01/89		6.3	.0	11.1	ISLAND PARK	6290	4/27/89	26	11.0	.0	10.3
LOST-WOOO DIVIDE	7900	4/27/89	42	18.1	11.1	22.4	ISLAND PARK PILLOW		5/01/89		12.4	8	14.3
LOST-WOOD OVD PILL	.0₩ 7900 7780	5/01/89 5/01/89		21.4 9.4E	10.7	26.3 15.3	JACKPINE CREEK LAVA CREEK	7350 7350	4/28/89 4/28/89	48 22	19.7 8.5	11.9	21.7 12.1
MASCOT MINE MOONSHINE	7440	4/27/89	9	2.0	1.4	8.3	LOWER PEBBLE	5780	4/29/89	0	.0	.0	•
MOONSHINE PILL		5/01/89		3.5	3.0	10.6	MAOISUN PLATEAU	7750	4/25/89	59	28.1	20.0	23.2
MULDOON	6320	4/27/89	0	.0	.0	.5	MC RENOLDS RESERVOIS		4/28/89	27	10.7	.0	16.3
SAWMILL CANYON	7000	4/27/89	0	.0	.0	4.3 1.4	MINK CREEK MUD CREEK	6410 7100	5/01/89 4/28/89	48	7.8E 19.3	.0	13.2 16.0
SOLDIER R.S. PILL	5740 OW 4330	4/30/89 5/01/89	0	.0	.0	1.4	NORTH PUTNAM	7240	5/01/89	55	24.8	9.1	10.0
STICKNEY MILL	7430	4/27/89	4	1.3	.0	6.0	PACKSADOLE SPRING	8200	4/28/89	72	30.0	22.2	29.0
STICKNEY MILL PILL		5/01/89		.0	.0	5.4	PEB8LE CREEK	6550	4/29/89	0	.0	.0	_
SWEDE PEAK	7640	4/27/89	25	9.6	3.1	15.6	PHILLIPS BENCH	8200	4/27/89	83	35.7	27.6	31.1
SWEDE PEAK PILL VIENNA MINE	OW 7640 8960	5/01/89 5/01/89		10.6 35.7	.0 25.9	15.0 39.1	PHILLIPS BENCH PILL. PINE CREEK PASS	8200 6810	5/01/89 5/01/89	16	33.7 6.9	23.1 5.3	30.2 12.7
VIENNA MINE PILL		5/01/89		33.0	24.8	40.3	PUTNAM	7220	4/30/89	17	6.9	3.1	
WET CREEK SUMMIT	7680	4/28/89		5.2	4.6	7.4	SAWTELL MOUNTAIN	8720	4/27/89	102	43.5	28.8	39.1
							SEDGWICK PEAK	7850	4/30/89	26	12.5	4.7	-
							SHEEP MOUNTAIN SHEEP MTN PILLO	6570 4 6570	4/28/89 5/01/89	0	.0	.0	9.5 10.3
							SLUG CREEK DIVIDE	7230	4/26/89	6	.2 1.8	.9	13.5
							SLUG CK OVD PILLO		5/01/89		3.5	.7	16.4
							SOMSEN RANCH	6840	4/27/89	11	3.4	1.0	12.2
							SOMSEN RANCH PILLON		5/01/89		.0	.0	9.8
							STATE LINE TETON PASS W.S.	6660 7740	5/01/89 4/28/89	17 71	7.1 29.9	4.2 23.2	9.1 28.3
							TEX CREEK	6650	5/01/89		.0E	.0	
							TOPONCE	6160	4/30/89	0	.0	.0	_
							TWITCHELL CANYON	6300	5/01/89	0	.0	_	
							VALLEY VIEW	6680	4/27/89	27	10.1	.5	12.8
							WHISKEY CREEK WHITE ELEPHANT	6800 7710	4/25/89 4/27/89	44 68	21.6 27.9	10.7 16.8	18.7 25.3
							WHITE ELEPHANT PILL		5/01/89		35.4	20.8	27.2
							WILDHORSE DIVIDE	6490	5/01/89		7.0E	.0	12.1
							WILOHORSE OVD PILLO		5/01/89		7.2	.3	10.6
SOUTHSIDE SNAKE BASIN					WATERSHE	D VII	GREAT BASIN					WATERSHI	20 VIII
BADGER GULCH	6660	5/01/89	2	2.2	.0		CU8 RIVER R.S.	5450	4/24/89	. 0	.0	.0	.4
BEAR CREEK	7800	5/01/89		18.9E		21.5	EMIGRANT SUMMIT	7390	4/27/89		13.9	9.0	23.6
BOSTETTER R.S.	7500	5/01/89	29	13.7	8.4	13.5	EMIGRANT SUM PILLO		5/01/89		15.4	9.0	27.3
CEUAR CREEK	682U	4/29/89	0	.0	.0	3.7	EMIGRATIUN CANYON	6500	4/27/89		.0	.0	
DEADLINE OEADLINE SOUTH	7400 7450	4/29/89 4/29/89	0 18	.0 7.7	.0	20.3 25.1	FRANKLIN BASIN GIVEOUT	8020 6860	4/24/89 5/U1/89		18.5 .0E	12.3	20.7 7.1
GOAT CREEK	8800	4/29/89	51	19.5	16.6	20.9	GIVEOUT PILLO		5/01/89		.0	.0	
HOWELL CANYON	798U	5/01/89	46	21.6	9.7	23.5	GIVEOUT NEW	6930	4/26/89		.0	_	4.4
HOWELL CANYON PILL		5/01/89		18.4	3.7	20.3	LITTLE BEAVER	6790	5/01/89		.0E		9.9
HUMMINGBIRD SPRING		4/29/89		24.0E		27.7	LOWER HOME CANYON	7640	4/26/89		7.8E		11.5
LANGFORD FLAT CREE MAGIC MOUNTAIN	K 5980 6880	4/29/89 4/29/89	0 23	.0 10.7	.0 3.8	.9 18.0	OXFORU MUUNTAIN OXFURD SPRING	68U0 6740	5/01/89 5/01/89		.0E		5.8
MAGIC MTN PILL		5/01/89		6.9	.5	18.0	OXFORD SPRING PILLO		5/01/89		.0	.0	6.7
MUD FLAT	5 730	5/01/89		.0E		.2	STRAWBERRY CREEK	5820	4/27/89		.0	.0	3.2
MUD FLAT PILL	OW 5730	5/01/89		.0	.0	.0	UPPER HOME CANYON	8560	4/26/89	51	21.0	15.0	23.8
POLE CREEK R.S.	8 3 3 U	4/29/89	50	20.0	18.8	23.4	WILLOW FLAT	6070	4/24/89	0	.0	.0	5.9
SHOSHONE BASIN SOUTH MOUNTAIN	5810 6500	5/01/89 4/29/89	14	.0E 5.5	.0	1.0 8.2							
SOUTH MTN PILL		5/01/89		5.9	.0	7.2							
WILSON CREEK	7500	4/29/89	18	6.8	.0	7.8							



# The Following Organizations Cooperate With The Soil Conservation Service In Snow Survey Work

State

Idaho Department of Water Resources Soil and Water Conservation Districts of Idaho

**Federal** 

U.S. Department of Agriculture Forest Service

U.S. Department of Army Corps of Engineers

U.S. Department of Commerce NOAA, National Weather Service

U.S. Department of Interior
Bureau of Reclamation
Geological Survey, Water Resources Division
Shoshone-Bannock Tribal Council

Local

Big Lost River Irrigation District
Big Wood Irrigation Company
Boise Project Board of Control
Idaho Water District #01
Lewiston Orchards Irrigation District
Little Wood River Irrigation District
North Board of Control — Owyhee Project
Salmon Falls Irrigation Company
South Board of Control — Owyhee Project

**Private** 

Cyprus Mining Company
FMC Corporation
Idaho Power Company
Le Bois Resort
Washington Water Power Company

Other organizations and individuals furnish information for the snow survey reports. Their cooperation is gratefully acknowledged.

## UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

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